PEER REVIEW HISTORY

ARTICLE DETAILS

TITLE (PROVISIONAL)	Reporting of Conflicts of Interest by Authors of Primary Studies on Health Policy and Systems Research: a Cross-sectional Survey
AUTHORS	Hakoum, Maram; Bou-Karroum, Lama; Al-Gibbawi, Mounir; Khamis, Assem; Raslan, Abdul Sattar; Badour, Sanaa; Agarwal, Arnav; Alturki, Fadel; Guyatt, Gordon; El-Jardali, Fadi; Akl, Elie

VERSION 1 – REVIEW

REVIEWER	Vivienne C. Bachelet Universidad de Santiago de Chile, USACH, Chile
REVIEW RETURNED	18-Jul-2019

GENERAL COMMENTS	A simple, nicely-done, correctly reported research on an important aspect of publication ethics. While not groundbreaking, I have no comments to make to this manuscript that could improve it as it stands and I recommend its publication. Those of us who are interested in journalology and publication ethics, of course, will always wonder when will we get around to actually verifying that what authors state in their submitted manuscripts, is actually true. Therein lies the challenge.

REVIEWER	Nadia ELIA University Hospitals of Geneva, Switzerland and Medical Faculty, University of Geneva, Geneva, Switzerland. The authors of the present manuscript cite one article I contributed to, and this could make me willing to see it published.
REVIEW RETURNED	24-Jul-2019

GENERAL COMMENTS	General comments: This study is a cross-sectional analysis of systematically searched studies over one year (2016), in English, in some given journals. Therefore, the reporting should follow the STROBE recommendations (and not the PRISMA). Some titles are missing like the justification for the sample size chosen (STROBE 10). The new information provided in this manuscript is rather poor: starting with 200 articles (why 200?), we drop to 132 reporting a COI disclosure, and finally only 19 reporting the presence of some kind of COI. The results described regarding COI are based on these 19 articles only. We know nothing about the differences in the characteristics of the authors, or of the journals, between those reporting a disclosure

	and those who did not, or differences between those reporting no COI and those actually reporting them. We do not know anything about the journal's recommendations regarding disclosures of COIs, etc… The reason for this is maybe that some of the information has already been published in various previous publications based of the same "cohort of articles" (I suppose, although this is not mentioned in the manuscript. If this is the case, it could be considered as "salami slicing", and should not be encouraged). The reporting of funding in health policy and systems research: a cross-sectional study. Khamis AM, Bou-Karroum L, Hakoum MB, Al-Gibbawi M, Habib JR, El-Jardali F, Akl EA. Health Res Policy Syst. 2018 Aug 17;16(1):83. (SAME cohort of 200 articles, same table 1) Public health journals' requirements for authors to disclose funding and conflicts of interest: a cross-sectional study. Daou KN, Hakoum MB, Khamis AM, Bou-Karroum L, Ali A, Habib JR, Semaan AT, Guyatt G, Akl EA. BMC Public Health. 2018 Apr 23;18(1):533. (unclear if the same cohort of journals.) Requirements of health policy and services journals for authors to disclose financial and non-financial conflicts of interest: a cross-sectional study. Khamis AM, Hakoum MB, Bou-Karroum L, Habib JR, Ali A, Guyatt G, El-Jardali F, Akl EA. Health Res Policy Syst. 2017 Sep 19;15(1):80. (unclear if the same cohort of journals) . Specific comments: Abstract, page 3 Design: line 13: the term "using standard methodology" is too vague be informative. Setting: It seems that this subtitle is misinterpreted. It should describe the setting in which the research was conducted (See STROBE) Participants: could be more informative and describe the random (?) selection of a sample of articles (design ?) published in which type of journals etc… Outcome measures: could be more informative and describe which type of information was extracted regarding the COI disclosures. Results: line 27, n should be added (14% of 132= 18 or 19). Also the difference between individual intellectual and personal COIs could be shortly described. Conclusion: the comparison made to the frequency of COI disclosure in "the clinical field" is not based on the data presented in this study, and is not informative since readers may not be aware of "this frequency". The recommendation that HPSR journals should strengthen their COI disclosure policy makes sense, but the present study does not allow concluding 1) that there is a disclosure problem, 2) that the problem is due to the weakness of the journal's policy and, 3) that changing the policies could be effective.

	Introduction: A description of the different types of COI that exist, with a focus on those of particular interest in the context of health policy papers would be interesting here. The only description of COI available is a very exhaustive one in the appendix file (which is very similar to supplementary file of Bou-Karroum et al 2018). However, a simpler description is also needed here with an explanation of how the classification of COI was defined, since the references given later on are the author's own articles. Methods: Page 7, line 20: why restrict to English language? And why 2016? Line 40: unclear why a sample size of 200 papers was chosen (except because these studies have already been analyzed with results published elsewhere, which is not reported in the present manuscript). Sample size should be justified (STROBE 10) Also, Figure2: unclear why" 8 eligible studies were excluded because the sample size was exceeded" …. Sample size requirement is not reported. Page 8, line 13: the reference to PRISMA is a bit weird since this is a cross-sectional study Page 9: line 53: there are no hypotheses stated, therefore I do not understand why chi2 test should be performed. To compare what? Page 10: Table 1: the first 3 lines are duplicate of the Table 1 of Khamis et al 2018 (the same cohort of articles) Page 12, line 22: what about the 132-19=113 papers: did they declare that they had no COI? Or was there no disclosure at all? Please clarify and describe the characteristics of these journals and authors. Line 29-31: the sentence is not clear: 25% of what? Median % of authors?? Needs to be rephrased Lines 36-40: should be made clear that these were not pre-hoc hypotheses. Page 14, table 3: unsure what the 2nd column adds, if anything (not clear which is the denominator. % of n=15??) Discussion: Page 16, line 8: "we used a framework for classification of COI validated in previous studies" lacks a reference. Also, the only references provided are author's own articles, and I am not sure these articles "validated" the final classification. Page 17: figure 3 is a result, and should not appear in the discussion. The conclusion is not based on the finding of this study. Page 18: Conflict of interest: none declared seems a bit short, especially in this article, where I am sure at least one of the 11 authors could find at least one of the 12 possible COI described!

REVIEWER	Sheldon Krimsky Tufts University, USA
REVIEW RETURNED	26-Aug-2019

GENERAL COMMENTS	The objectives of the paper are clearly stated. The authors are probably correct about the lack of data on COIs in Health Policy & Service journals. Given the importance of these journals in setting policy, the study has some importance in the field of health policy. The authors use a number of software packages such as REDcap and tests i.e. K-S test, about which I am unfamiliar. The results are clearly presented. I believe the paper should list the 55 HP&S journals and the countries of publication as well as whether they

	have a COI requirement for authors. The limitation section states an issue of whether these journals have COI requirements, but we are not told which ones do. That is something that should be listed in the table of the HP&S journals that were the source of their articles.

REVIEWER	Marianne Koch Medical University of Vienna, Austria
REVIEW RETURNED	28-Aug-2019

GENERAL COMMENTS	I read with interest the manuscript on the reporting of COI in HPSR publications. The manuscript is well structured and written and methods and results seem conclusive to me. I do have the following comments: -) Discussion section, page 17 "implications for practice and research": you are focusing on the question/statement on how to improve the reporting of COI in the future. I recommend to include a discussion about possible implications which COIs might have on the quality of the HPSR publications (e.g. in medical/clinical research, a financial COI may lead to the situation that authors present their research results in a more "suitable" format for the financing institution- often pharmaceutical companies- to their advantage). What does a financial COI imply regarding the validity of a HPSR study? Who is sponsoring HPSR studies? Could governmental grants influence the reporting of results to their advantage (e.g. to promote a government program)? I believe it would be interesting for the readers to include this discussion. -) Did you cross-check with journals publication policies, whether or not the included journals required a COI statement? It would be interesting to see numbers, how many HPSR journals do actually require a COI statement, and if yes, if the authors always adhered to it. Was there any difference in the Impact Factor (e.g. lower IF, lesser COI reporting?) -) page 10 line 12/13: check spelling: "Out the 2648 citations identified"

REVIEWER	Jake Checketts Oklahoma State, USA
REVIEW RETURNED	08-Sep-2019

GENERAL COMMENTS	Introduction: The sentences are very choppy. I would suggest adding words such as "furthermore" and "additionally" between sentences to provide better readability. Methods: You state "We defined COI disclosure as the reporting of whether a COI exists or not." But you only evaluated COIs that were self reported. Resent research on COIs have shown that self reporting is inadequate, and there often is un-reported COIs by authors. Because of your definition of COI being "whether a COI exists or not" I do not feel like you fully addressed your own definition. You should have also evaluated Open Payments for study's published in the USA to add COIs within this database and compare them to the self-dislosed COIs.

	Can you include the "standardized data extraction form with detailed instructions" as a supplemental document? Was there ever a time which consensus could not be reached? Also, because you did not cite this recent research (published in the last couple years) regarding COIs, disclosure inaccuracy, and disclosure discrepancy it does not make me confident in your literature review for writing/conducting this paper as many of these publications were in reputable journals. What is your definition of HPSR? How did you decide which literature was classified as HPSR? Does HPSR just mean those published under "governance, financial, delivery arrangements, and implementation strategies " categories in the journals selected? If so to me it would seem that some studies published under those categories may not actually be health policy and systems research as this inclusion criteria is quite broad. It is similar to how selecting "orthopaedic surgery" in pubmed will bring up many studies that are not actually orthopaedic studies. Did you screen studies returned from your searches from the selected categories/web of science secondarily to ensure they were HSPR? (** after reading the figures it appears you did screen out studies that weren't HSPR secondarily, however I left this criticism so you could understand my thought process as reading the paper, and perhaps you could clarify the selection process narrative portion of your methodology to make what you were screening for during you double data extraction more clear) Also, including the data extraction form will help this. Results: Table 1 is really nice, and an asset to the paper in my opinion. Overall, the results section is good. However, I believe your prevalence of COIs among the authors is likely low because studies show self-reporting is inadequate and inaccurate in terms of disclosure. Discussion: Well written, however the citations are relatively old. Especially for a topic that has taken off in recent years. I recommend combing through recent literature and citing studies published about COIs in the last few years. There are many. I also really like your appendix describing the definitions of COIs. Overall impression: Methodology is strong, writing could use some minor enchantments such as transitional words for readability, use of the Open Payments database for studies conducted in the USA would have made this a stronger paper.

VERSION 1 – AUTHOR RESPONSE

Reviewer 1 Comments to Author:

Reviewer Name: Vivienne C. Bachelet

Institution and Country: Universidad de Santiago de Chile, USACH, Chile

Please state any competing interests or state ‘None declared’: None

Comment 1: A simple, nicely-done, correctly reported research on an important aspect of publication ethics. While not groundbreaking, I have no comments to make to this manuscript that could improve it as it stands and I recommend its publication.

Those of us who are interested in journalology and publication ethics, of course, will always wonder when will we get around to actually verifying that what authors state in their submitted manuscripts, is actually true. Therein lies the challenge.

Response 1: We would like to thank Reviewer 1 for her positive evaluation! We fully agree with the Reviewer that it is challenging to verify the accuracy and completeness of the COI reported by the authors. Actually, we are currently conducting a systematic review of the literature examining the verification of COI disclosures.

Reviewer 2 Comments to Author:

Reviewer Name: Nadia ELIA
Institution and Country:
University Hospitals of Geneva, Switzerland
and Medical Faculty, University of Geneva, Geneva, Switzerland.
Please state any competing interests or state 'None declared': The authors of the present manuscript cite one article I contributed to, and this could make me willing to see it published.

General comments:

Comment 1: This study is a cross-sectional analysis of systematically searched studies over one year (2016), in English, in some given journals. Therefore, the reporting should follow the STROBE recommendations (and not the PRISMA). Some titles are missing like the justification for the sample size chosen (STROBE 10).

Response 1: Thank you for the suggestion. As the reviewer notes, this is a cross sectional analysis that included many features of the systematic review methodology (including setting selection criteria, designing a search strategy, and having both a selection and data extraction processes). We have considered the reviewer's suggestion and found that many of the STROBE recommendations are relevant to our study, but eventually felt that PRISMA might be more relevant.

Comment 2: The new information provided in this manuscript is rather poor: starting with 200 articles (why 200?), we drop to 132 reporting a COI disclosure, and finally only 19 reporting the presence of some kind of COI. The results described regarding COI are based on these 19 articles only.

Response 2: We agree with the Reviewer regarding the very low number of articles providing COI information. Indeed, this limited our ability to assess the types and frequency of COI disclosed by authors of primary studies of HPSR. However, we regard this as one of the main findings of our study, as the low number of articles (n=19) reporting any types of COI reflect the low rate of disclosure of COI in HPSR. We provided possible explanations of this low rate of disclosure in the discussion section as below:

> *"Possible explanations for this low rate of disclosure could be that HPSR authors may have less COIs than authors in the clinical field, HPSR authors are less aware of what constitute COI in their field or self-reporting is an inadequate and inaccurate form of disclosure."*

Comment 3: We know nothing about the differences in the characteristics of the authors, or of the journals, between those reporting a disclosure and those who did not, or differences between those reporting no COI and those actually reporting them. We do not know anything about the journal's recommendations regarding disclosures of COIs, etc… The reason for this is maybe that some of the information has already been published in various previous publications based of the same "cohort of articles" (I suppose, although this is not mentioned in the manuscript. If this is the case, it could be considered as "salami slicing", and should not be encouraged).

The reporting of funding in health policy and systems research: a cross-sectional study. Khamis AM, Bou-Karroum L, Hakoum MB, Al-Gibbawi M, Habib JR, El-Jardali F, Akl EA. Health Res Policy Syst. 2018 Aug 17;16(1):83.
(SAME cohort of 200 articles, same table 1)

Public health journals' requirements for authors to disclose funding and conflicts of interest: a cross-sectional study. Daou KN, Hakoum MB, Khamis AM, Bou-Karroum L, Ali A, Habib JR, Semaan AT, Guyatt G, Akl EA. BMC Public Health. 2018 Apr 23;18(1):533.
(unclear if the same cohort of journals.)

Requirements of health policy and services journals for authors to disclose financial and non-financial conflicts of interest: a cross-sectional study. Khamis AM, Hakoum MB, Bou-Karroum L, Habib JR, Ali A, Guyatt G, El-Jardali F, Akl EA. Health Res Policy Syst. 2017 Sep 19;15(1):80. (unclear if the same cohort of journals)

Response 3: While we understand the Reviewer's concern, we would like to reassure her that this is not a case of salami slicing. As a background, this paper is part of a research agenda to develop a comprehensive framework for the classification of COIs. For that purpose, we developed a first version of the framework based on a literature review and the International Committee of Medical Journal Editors (ICMJE) COI disclosure form. Then, we conducted a series of studies examining the COI disclosure policies of journals in the clinical, health policy, and public health fields. Then, we conducted cross sectional surveys on the reporting of COI in different types of research publications (i.e., primary studies and systematic reviews) in the clinical, public health and health policy and systems research fields. The studies (referenced above by the Reviewers and assessing COI use totally different cohorts of studies. Similarly, we reviewed the COI disclosures policies of journals in these different fields (clinical, public health and health policy and systems research) using totally different cohorts of journals. For example, the study on "Public health journals' requirements for authors to disclose funding and conflicts of interest**"** focused on 173 journals categorized as "Public, Environmental & Occupational Health", in Social Science Citation Index (SCIE) edition of the Journal Citation Reports (JCR) of the Web of Science database which is different cohort of journals that the journals in this study which are "health policy and services" journals.

In only one study, that is on the reporting of funding (and not COI) in HPSR, we included 400 papers, which included the 200 studies included in this study. However, that study had the specific aims of assessing (1) the reporting of funding in health policy and systems research (HPSR) papers and (2) the funding reporting policies of journals publishing on HPSR.

We hope this addresses the Reviewer's concern.

On the other hand, and based on the Reviewer comment, we have evaluated the 55 journals that published the 200 papers included in this study. We found that 90% of papers are published in journals that do have a policy requiring COI disclosure. We have provided the list of the 55 journals in the appendix. We have added a new section on the characteristics of the journals to the results section:

> *"Characteristics of the Journals*
>
> *The median impact factor of the 55 journals that published the included primary studies was 1.66 (IQR=1.36-2.41). Ninety-six percent (53/55) of the journals had a COI disclosure policy. Of the 68 papers that did not include a COI statement, 90% (61/68) were published in journals*

that did have a COI policy. We provided the list of the 55 journals that published the included primary studies in appendix S4."

And the below to the method section

"We extracted information the following information on the characteristics of the journal:

- *Impact factor*
- *Existence of a COI disclosure policy"*

Comment 4: Abstract, page 3
Design: line 13: the term "using standard methodology" is too vague be informative.
Response: thank you for drawing our attention to this issue. To clarify this point, we added the term "*standard systematic review methodology for study selection and data extraction"* to the design section of the abstract and the method section.

Setting: It seems that this subtitle is misinterpreted. It should describe the setting in which the research was conducted (See STROBE)
Response: As suggested by the Reviewer, we have clarified our setting in the abstract section by adding the following:

"We collected data from papers published in 2016 in "health policy and service journals" category in Web of Science database."

Participants: could be more informative and describe the random (?) selection of a sample of articles (design?) published in which type of journals etc…
Response**:** As suggested by the Reviewer, we have clarified our participants in the abstract section by adding the designs of primary studies and the type of journals as below

"We included primary studies (e.g., randomized controlled trials, cohort studies, qualitative studies) of HPSR published in English in 2016 in peer-reviewed health policy and services journals."

Outcome measures: could be more informative and describe which type of information was extracted regarding the COI disclosures.

Response: As suggested by the Reviewer, we have clarified our outcome measures in the abstract section as below:

"Outcome measures: Reported COI disclosures including whether authors reported COI or not, form in which COI disclosures were provided, number of authors per paper that report any type of COI, number of authors per paper that report specific types and subtypes of COI."

Results: line 27, n should be added (14% of 132= 18 or 19). Also the difference between individual intellectual and personal COIs could be shortly described.

Response: As suggested by the Reviewer, we have added the below to the results section of the abstract:

"Of the 132 studies, 19 studies (14%) had at least one author reporting at least one type of COI"

Regarding the difference between individual intellectual and personal COIs. Appendix 1 provide detailed descriptions of both types with examples:

"Individual intellectual COI arises when an individual participates in scholarly activities related to the issue under consideration, or when an individual has taken a position or has an opinion and expresses it in a statement publicly. Such activities may result in an emotional attachment to a particular interpretation of evidence or position regarding optimal course of action."

"Individual personal arises when an individual has personal opinions or conditions that concern one's private life, relationships, and emotions rather than one's career or public life."

Conclusion: the comparison made to the frequency of COI disclosure in "the clinical field" is not based on the data presented in this study, and is not informative since readers may not be aware of "this frequency".

Response: The Reviewer makes a valid point. We have removed that part from the conclusion.

The recommendation that HPSR journals should strengthen their COI disclosure policy makes sense, but the present study does not allow concluding 1) that there is a disclosure problem, 2) that the problem is due to the weakness of the journal's policy and, 3) that changing the policies could be effective.

Response: We have removed that statement from the conclusion. Please note, that based on the Reviewer comment, and as noted above, we have assessed the 55 journals that published the 200 papers included in this study. We found that 90% of papers are published in journals that do have a policy requiring COI disclosure. This might be explained by the fact that journals are not strictly

implementing their COI disclosure policies and thus should strengthen their COI disclosure policy. We have also provided a list of the 55 journals in the appendix.

Introduction:

A description of the different types of COI that exist, with a focus on those of particular interest in the context of health policy papers would be interesting here. The only description of COI available is a very exhaustive one in the appendix file (which is very similar to supplementary file of Bou-Karroum et al 2018). However, a simpler description is also needed here with an explanation of how the classification of COI was defined, since the references given later on are the author's own articles.

Response: The framework that was used for the classification of COI was initially based on a literature review and the International Committee of Medical Journal Editors (ICMJE) COI disclosure form. The framework was later and refined in three subsequent studies on COI reporting in clinical systematic reviews, HPSR systematic reviews and randomized controlled trials. The framework in first study on the reporting of financial and non-financial conflicts of interest by authors of clinical systematic reviews[1] included the following six types of COI:

1. Individual financial COI,
2. Individual professional COI,
3. Individual intellectual COI,
4. Institutional financial COI,
5. Institutional advocatory COI,
6. 'Other types' of COI.

In the second study on the reporting of both financial and nonfinancial COI by authors of randomized controlled trials, the framework was refined based on findings from the previous study (e.g., types of COI not accounted for by the original framework) and classified COI into nine types as follows:

1. Individual financial COI;
2. Institutional financial COI
3. Individual professional COI;
4. Institutional professional COI
5. Individual scholarly COI;
6. Institutional scholarly COI
7. Individual advocatory COI;
8. Institutional advocatory COI;
9. Individual personal COI.

In the present study, the framework is further refined and validated as shown in Figure 1 and appendix 1. We have added the references of the three studies in the discussion section and we have now added the reference of the ICMJE form.

[1] Hakoum MB, Anouti S, Al-Gibbawi M, et al. Reporting of financial and non-financial conflicts of interest by authors of systematic reviews: a methodological survey. *BMJ Open* 2016;6(8):e011997. doi: 10.1136/bmjopen-2016-011997

Methods:

Page 7, line 20: why restrict to English language? And why 2016?

Response: As we conducted this study between 2017 and 2018 and we wanted to assess a contemporary set of papers, we chose the year 2016. We chose the English language for practical purposes and because we felt the literature published in English would be representative.

Line 40: unclear why a sample size of 200 papers was chosen (except because these studies have already been analyzed with results published elsewhere, which is not reported in the present manuscript). Sample size should be justified (STROBE 10)

Response: The 200 papers included in this paper are analyzed for reporting conflict of interest by authors of HPSR while the study of Khamis et al. 2018 analyzed these papers for reporting funding sources. We did not mention this study in this paper since it has different aims. Given this study was explorative and did not have a specific hypothesis, we did not calculate a sample size.

Also, Figure2: unclear why" 8 eligible studies were excluded because the sample size was exceeded" …. Sample size requirement is not reported.

Response: thank you for raising the question. Out of the 251 that we screened, we included 208 studies but as we aim to have a sample size of 200 so we excluded the additional 8 studies. To avoid any confusion, we removed the reference to the 8 studies from Figure 2.

Page 8, line 13: the reference to PRISMA is a bit weird since this is a cross-sectional study

Response: As we have mentioned in comment 1: We followed the Preferred reporting items for systematic reviews and meta-analyses (PRISMA) and the standard systematic review methodology to conduct and report on study selection and data extraction particularly. We had pre-defined eligibility criteria and we conducted the screening title and abstracts and full texts for eligibility and the data abstraction in duplicate and independently.

Page 9: line 53: there are no hypotheses stated, therefore I do not understand why chi2 test should be performed. To compare what?

Response: The Chi2 test was used to compare studies with authors reporting financial COIs compared to non-financial COIs and individual COIs compared to institutional COIs. The results were reported in the results section under "*Characteristics of the reported COI disclosures"* as below:

"Of the 132 primary studies that provided COI disclosure statements, more had at least one author reporting financial COIs compared to non-financial COIs (n=16; 12% versus n=3; 2%; p-value=0.04). More studies had at least one author reporting individual COIs compared to institutional COIs (n=15; 11% versus n=5; 4%; p-value=0.01)."

Page 10: Table 1: the first 3 lines are duplicate of the Table 1 of Khamis et al 2018 (the same cohort of articles)

Response: As the study of Khamis et al. 2018 conducted the analysis on same 200 primary studies included in this study to assess the reporting of funding, the characteristics of general characteristics the included studies in Table 1 are similar to Table 1 in this study.

Page 12, line 22: what about the 132-19=113 papers: did they declare that they had no COI? Or was there no disclosure at all? Please clarify and describe the characteristics of these journals and authors.

Response: Thank you for the opportunity to further clarify the findings. Out of the 200 primary studies, 132 included COI disclosure statements of authors. Out of the 132 studies that included COI disclosure statements, 19 studies (14%) had at least one author reporting at least one type of COI while 113 studies had their authors reporting that they had no conflict of interest. We have amended the results section to better clarify this point:

"Table 2 presents the reporting of the different types of COI in the 132 studies that included COI disclosure statements. Of these 132 studies that included COI disclosure statements, 19 (14%) had at least one author reporting at least one type of COI while 113 (86%) studies had their authors reporting that they had no conflict of interest."

Line 29-31: the sentence is not clear: 25% of what? Median % of authors?? Needs to be rephrased

Response**:** thank you for raising this question. 25% is the median percentage of authors reporting individual financial COI. We have amended this sentence to avoid confusion as below:

"The most frequently reported type was individual financial COI (n=15, 11%), with the median percentage of authors reporting this type of COI being 25% ~~(out of the 132 studies with at least one author reporting that type of COI)~~."

Lines 36-40: should be made clear that these were not pre-hoc hypotheses.

Response: Thank you for giving us the chance to clarify; our aim was to conduct a descriptive analysis rather than testing hypothesis.

Page 14, table 3: unsure what the 2nd column adds, if anything (not clear which is the denominator. % of n=15??)

Response: the denominator is 15 which is the number of studies with at least one author reporting individual financial COI. We hope this makes sense.

Discussion:
Page 16, line 8: "we used a framework for classification of COI validated in previous studies" lacks a reference. Also, the only references provided are author's own articles, and I am not sure these articles "validated" the final classification.

Response: thank you. The Reviewer is right that the framework may need further validation, so we have removed the term 'validated' from the text. As mentioned earlier, this paper is part of a research agenda to develop and validate this framework for the classification of COIs. The framework was initially based on a literature review and the International Committee of Medical Journal Editors (ICMJE) COI disclosure form. The framework was later tested and refined in three previous studies on COI reporting in clinical systematic reviews, HPSR systematic reviews and randomized controlled trials. In the present study, the framework is further tested and refined as shown in Figure 1 and appendix 1.

Page 17: figure 3 is a result, and should not appear in the discussion.
The conclusion is not based on the finding of this study.

Response: Figure 3 is intended to compare the reporting of financial and non-financial COI in this study to their reporting in previous similar study. That is why it is under the subsection 'Comparison to other studies' which typically comes under the discussion section. If the editor prefers, we would be happy to move this subsection to the results section.

Page 18: Conflict of interest: none declared seems a bit short, especially in this article, where I am sure at least one of the 11 authors could find at least one of the 12 possible COI described!

Response: We have added the following: Maram B. Hakoum, Gordon Guyatt, and Elie A. Akl have competing interests related to their research in the area of conflicts of interest.

Reviewer 3 Comments to Author:

Reviewer Name: Sheldon Krimsky
Institution and Country: Tufts University, USA

Please state any competing interests or state 'None declared': None declared. I have no competing interests pertaining to this review.

Comment 1: The objectives of the paper are clearly stated. The authors are probably correct about the lack of data on COIs in Health Policy & Service journals. Given the importance of these journals in setting policy, the study has some importance in the field of health policy. The authors use a number of software packages such as REDcap and tests i.e. K-S test, about which I am unfamiliar.

Response 1: We thank Dr. Krimsky for the positive feedback.

Comment 2: The results are clearly presented. I believe the paper should list the 55 HP&S journals and the countries of publication as well as whether they have a COI requirement for authors. The limitation section states an issue of whether these journals have COI requirements, but we are not told which ones do. That is something that should be listed in the table of the HP&S journals that were the source of their articles.

Response 2: We have conducted an assessment of the requirements of health policy and services journals (including the 55 journals that published the primary studies included in this study) for authors to disclose their financial and non-financial COIs[2]. The study found that 93% of HPSR journals have a COI disclosure policy and few journals required details on disclosed COIs. We have mentioned this study in the discussion section: "*Factors that may be contributing to these differences include the less rigorous COI policies in HPSR journals compared to Core Clinical journals, and potentially a less strict implementation: 93% of HPSR journals (including the 55 journals that published the primary studies included in this study) have a COI disclosure policy compared to 99% for Core Clinical journals*".

We have also ran analyses in the dataset of 200 papers included in this study and the 55 journals that published the 200 papers. We found that 90% of papers are published in journals that do have a policy requiring COI disclosure. We have also provided a list of the 55 journals in the appendix. We have added a new section on the characteristics of the journals to the results section:

> *"Characteristics of the Journals*
>
> *The median impact factor of the 55 journals that published the included primary studies was 1.66 (IQR=1.36-2.41). Ninety-six percent (53/55) of the journals had a COI disclosure policy. Of the 68 papers that did not include a COI statement, 10% (7/68) were published in journals*

[2] Khamis AM, Hakoum MB, Bou-Karroum L, et al. Requirements of health policy and services journals for authors to disclose financial and non-financial conflicts of interest: a cross-sectional study. Health research policy and systems 2017;15(1):80. doi: 10.1186/s12961-017-0244-2.

that did have a COI policy. We provided the list of the 55 journals that published the included primary studies in S4 appendix."

And the below to the method section

"We extracted information the following information on the characteristics of the journal:

- *Impact factor*
- *Existence of a COI disclosure policy"*

Reviewer 4 Comments to Author:

Reviewer Name: Marianne Koch
Institution and Country: Medical University of Vienna, Austria
Please state any competing interests or state 'None declared': No competing interests to declare

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Comment 1: I read with interest the manuscript on the reporting of COI in HPSR publications. The manuscript is well structured and written and methods and results seem conclusive to me. I do have the following comments.

Response 1: We thank the Reviewer for her constructive feedback.

Comment 2: Discussion section, page 17 "implications for practice and research": you are focusing on the question/statement on how to improve the reporting of COI in the future. I recommend to include a discussion about possible implications which COIs might have on the quality of the HPSR publications (e.g. in medical/clinical research, a financial COI may lead to the situation that authors present their research results in a more "suitable" format for the financing institution- often pharmaceutical companies- to their advantage). What does a financial COI imply regarding the validity of a HPSR study? Who is sponsoring HPSR studies? Could governmental grants influence the reporting of results to their advantage (e.g. to promote a government program)? I believe it would be interesting for the readers to include this discussion.

Response 2: Health policy and systems research (HPSR) can produce the reliable and rigorous research evidence which helps to inform policy decisions. Health policy analysis which is a central element of HPSR that can also influence policymaking. Therefore, financial COIs might have on the quality of the HPSR publications and consequently bias health policymaking. For instance, a financial COI in a study around the effectiveness of tobacco banning policies may lead to the situation that authors present their results in a more "suitable" format for the tobacco industry that shows that

tobacco banning policies are not effective in reducing prevalence of smoking. As suggested by the Reviewer, we have the below paragraph including relevant citations to the discussion under the implications section:

> *"As HPSR may be used to inform policy decisions, COI of HPSR authors may bias their research output and subsequently lead to misguided public policies and decisions 24 25. For example, Bes-Rastrollo et al. found that financial COI may bias findings of systematic reviews of the effects of sugar-sweetened beverages consumption on weight gain and obesity 26. In turn, such biased conclusions might adversely influence policymaking related to regulation of sugar-sweetened beverages. Consequently, the appropriate disclosure and management of COIs are essential for the credibility and trust in HPSR and hence, might increase its uptake in policymaking."*

Comment 3: Did you cross-check with journals publication policies, whether or not the included journals required a COI statement? It would be interesting to see numbers, how many HPSR journals do actually require a COI statement, and if yes, if the authors always adhered to it. Was there any difference in the Impact Factor (e.g. lower IF, lesser COI reporting?)

Response 3: Thank you for the constructive suggestions. Based on these suggestions, we have ran analyses in the dataset of 200 papers included in this study and the 55 journals that published the 200 papers. We found that 90% of papers are published in journals that do have a policy requiring COI disclosure. We have added a new section on the characteristics of the journals to the results section:

> *"Characteristics of the Journals*
>
> *The median impact factor of the 55 journals that published the included primary studies was 1.66 (IQR=1.36-2.41). Ninety-six percent (53/55) of the journals had a COI disclosure policy. Of the 68 papers that did not include a COI statement, 10% (7/68) were published in journals that did have a COI policy. We provided the list of the 55 journals that published the included primary studies in S4 appendix."*

And the below to the method section

> *"We extracted information the following information on the characteristics of the journal:*
>
> - *Impact factor*
> - *Existence of a COI disclosure policy"*

Please note, that we previously conducted an assessment of the requirements of health policy and services journals (including the 55 journals that published the primary studies included in this study)

for authors to disclose their financial and non-financial COIs3. The study found that 93% of HPSR journals have a COI disclosure policy. The same study also found no significant associations between the journals' impact factor and the existence of COI disclosure policy. We refer to this study in the discussion section.

We have clarified in the manuscript that the HPSR journals assessed in this current study were included in the study of Khamis et al.: "*Our findings, in relation to similar studies, demonstrate that COI disclosure statements are less frequently included in HPSR primary studies (66%) compared to HPSR systematic reviews (80%), clinical randomized controlled trials (94%), and clinical systematic reviews (97%) (figure 3). Factors that may be contributing to these differences include the less rigorous COI policies in HPSR journals compared to Core Clinical journals, and potentially a less strict implementation: 93% of HPSR journals (including the 55 journals that published the primary studies included in this study) have a COI disclosure policy compared to 99% for Core Clinical journals.*".

Comment 4: page 10 line 12/13: check spelling: "Out the 2648 citations identified"

Response 4: We have checked the spelling and fixed the sentence: "*Out of the 2648 citations identified. "*

Reviewer 5 Comments to Author:

Reviewer Name: Jake Checketts
Institution and Country: Oklahoma State, USA
Please state any competing interests or state 'None declared': None declared

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Comment 1: Introduction: The sentences are very choppy. I would suggest adding words such as "furthermore" and "additionally" between sentences to provide better readability.

Response 1: As suggested by the Reviewer, we have revised the introduction and made sure our sentences are better linked.

Comment 2: Methods: You state "We defined COI disclosure as the reporting of whether a COI exists or not." But you only evaluated COIs that were self-reported. Resent research on COIs have shown that self-reporting is inadequate, and there often is un-reported COIs by authors. Because of your definition of COI being "whether a COI exists or not" I do not feel like you fully addressed your own definition. You should have also evaluated Open Payments for

[3] Khamis AM, Hakoum MB, Bou-Karroum L, et al. Requirements of health policy and services journals for authors to disclose financial and non-financial conflicts of interest: a cross-sectional study. Health research policy and systems 2017;15(1):80. doi: 10.1186/s12961-017-0244-2.

study's published in the USA to add COIs within this database and compare them to the self-disclosed COIs.

Response 2: Dr. Checketts is totally right that authors tend to under report their conflicts of interests. Actually, we are currently conducting a systematic review of studies examining the verification of COI disclosures and indeed, the most commonly used source to verify COIs was the Open Payments database (OPD). We have clarified this point in the discussion section of the manuscript and added relevant references:[4]

> *"Possible explanations for this low rate of disclosure could be that HPSR authors may have less COIs than authors in the clinical field, HPSR authors are less aware of what constitute COI in their field or self-reporting is an inadequate and inaccurate form of disclosure. Indeed, an increasing number of studies is using resources such as the Open Payment database to verify the accuracy of the COI disclosures of health researchers [19-22]. They are consistently showing that researchers tend to underreport their conflicts of interest (up to 81% in one study [23]).*"

For this study, we specifically defined COI disclosure as "the **reporting** of whether a COI exists or not" as our ultimate purpose is not to verify the accuracy of the disclosures, but to better understand the different types of COIs that authors report. We will be using these data to ensure that the comprehensive framework for the classification of COI that we based it on clinical studies, is also relevant to the field of health policy and systems research.

Comment 3: Can you include the "standardized data extraction form with detailed instructions" as a supplemental document?

Response 3: Thank you for the suggestion. We have now included the data extraction form as a

[4] 19. Boddapati V, Fu MC, Nwachukwu BU, et al. Accuracy Between AJSM Author-Reported Disclosures and the Centers for Medicare and Medicaid Services Open Payments Database. The American journal of sports medicine 2018;46(4):969-76. doi: 10.1177/0363546517750124 [published Online First: 2018/02/01]
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21. Jimbo M, Granberg CF, Osumah TS, et al. Discrepancies in Self-Reported and Actual Conflicts of Interest for Robotic Pediatric Urological Surgery. The Journal of urology 2019;201(2):393-99. doi: 10.1016/j.juro.2018.07.043 [published Online First: 2018/07/28]
22. Luce EA, Jackman CA. Disclosure of Financial Conflicts of Interest in Plastic and Reconstructive Surgery. Plastic and reconstructive surgery 2017;140(3):635-39. doi: 10.1097/prs.0000000000003598 [published Online First: 2017/08/26]
23. Patel SV, Yu D, Elsolh B, et al. Assessment of Conflicts of Interest in Robotic Surgical Studies: Validating Author's Declarations With the Open Payments Database. Annals of surgery 2018;268(1):86-92. doi: 10.1097/sla.0000000000002420 [published Online First: 2017/07/13]

supplemental document (S3 appendix). We have added this information to the manuscript in the “data extraction” section.

> *“We developed and pilot-tested a standardized data extraction form with detailed instructions (see S3 appendix).”*

Comment 4: Was there ever a time which consensus could not be reached?

Response 4: During the screening and the data abstraction, there were few instances where consensus could not be reached between the reviewers. The third reviewers that we consulted during this process were FJ (expert in health policy and systems research) and EAA (expert in conflict of interest).

Comment 5: Also, because you did not cite this recent research (published in the last couple years) regarding COIs, disclosure inaccuracy, and disclosure discrepancy it does not make me confident in your literature review for writing/conducting this paper as many of these publications were in reputable journals.

Response 5: Thank you for the suggestion. We have added to the discussion section the following text referring to recent studies of disclosure inaccuracy:

> *“Possible explanations for this low rate of disclosure could be that HPSR authors may have less COIs than authors in the clinical field, HPSR authors are less aware of what constitute COI in their field or self-reporting is an inadequate and inaccurate form of disclosure. Indeed, an increasing number of studies is using resources such as the Open Payment database to verify the accuracy of the COI disclosures of health researchers [19-22]. They are consistently showing that researchers tend to underreport their conflicts of interest (up to 81% in one study [23]).”*

Comment 6: What is your definition of HPSR? How did you decide which literature was classified as HPSR? Does HPSR just mean those published under "governance, financial, delivery arrangements, and implementation strategies" categories in the journals selected? If so to me it would seem that some studies published under those categories may not actually be health policy and systems research as this inclusion criteria is quite broad. It is similar to how selecting "orthopaedic surgery" in pubmed will bring up many studies that are not actually orthopaedic studies. Did you screen studies returned from your searches from the selected categories/web of science secondarily to ensure they were HSPR? (after reading the figures it appears you did screen out studies that weren't HSPR secondarily, however I left**

this criticism so you could understand my thought process as reading the paper, and perhaps you could clarify the selection process narrative portion of your methodology to make what you were screening for during you double data extraction more clear). Also, including the data extraction form will help this.

Response 6: Thank you for raising this issue. We had pre-defined eligibility criteria based on which we did our screening. In addition to focusing on primary studies, our second main inclusion criteria was the type of field which is HPSR. We used the taxonomy of health systems topics used to code Health Systems Evidence (HSE) database of McMaster Health Forum to assess eligibility of paper identified through our search: governance, financial, delivery arrangements, and implementation strategies. HSE taxonomy is mainly based on system-wide categorization schemes, such as the WHO's 'building blocks of health systems, and on domain-specific schemes such as those related to human resources policy, pharmaceutical policy, and implementation strategies[5]. In order to clarify the taxonomy, we added the following to the method section:

> *"Type of field: health policy and systems research; we used the taxonomy of health systems topics used to code Health Systems Evidence (HSE) database of McMaster Health Forum to assess eligibility: governance, financial, delivery arrangements, and implementation strategies [13 14]. Governance arrangements cover five topics: policy authority, organizational authority, commercial authority, professional authority, and consumer & stakeholder involvement. Financial arrangements include topics on financing systems, funding organizations, remuneration providers, purchasing products & services and incentivizing consumers. Delivery arrangements cover topics related to how care is designed to meet consumers' needs, by whom care is provided, where care is provided, with what supports is care provided. Implementation strategies comprise topics on consumer-targeted strategy, provider-targeted strategy and organization-targeted strategy."*

Although we had searched "Health Policy and Services" journal category in the Web of Science database, we used the taxonomy to avoid any misclassification of articles in this category. Out of the 251, full texts screened, we excluded only 5 articles for not being HPSR which mean the misclassification in the web of science is minimal. We have added the below to the selection process (method section):

> *"Two reviewers screened title and abstracts for eligibility in duplicate and independently using EndNote. We ensured that papers retrieved by our search were effectively on HPSR."*

[5] Lavis JN, Wilson MG, Moat KA, et al. Developing and refining the methods for a 'one-stop shop' for research evidence about health systems. Health research policy and systems 2015;13:10. doi: 10.1186/1478-4505-13-10 [published Online First: 2015/05/15]

We have now included the data abstraction from as suggested by the Reviewer in S3 appendix.

Comment 7: Results: Table 1 is really nice, and an asset to the paper in my opinion. Overall, the results section is good. However, I believe your prevalence of COIs among the authors is likely low because studies show self-reporting is inadequate and inaccurate in terms of disclosure.

Response 7: We thank the Reviewer for his positive comment. Regarding the interpretation of the low rate of reporting, we have added the below to discussion section:

> *"Possible explanations for this low rate of disclosure could be that HPSR authors may have less COIs than authors in the clinical field, HPSR authors are less aware of what constitute COI in their field or self-reporting is an inadequate and inaccurate form of disclosure. Indeed, an increasing number of studies is using resources such as the Open Payment database to verify the accuracy of the COI disclosures of health researchers [19-22]. They are consistently showing that researchers tend to underreport their conflicts of interest (up to 81% in one study [23]).*"

Comment 8: Discussion: Well written, however the citations are relatively old. Especially for a topic that has taken off in recent years. I recommend combing through recent literature and citing studies published about COIs in the last few years. There are many.

Response 8: Based on the Reviewer's suggestion, we have updated our discussion section with recent citations mainly on the issue of COI disclosure inaccuracy, and disclosure discrepancy and we added the text below:

> *"Possible explanations for this low rate of disclosure could be that HPSR authors may have less COIs than authors in the clinical field, HPSR authors are less aware of what constitute COI in their field or self-reporting is an inadequate and inaccurate form of disclosure. Indeed, an increasing number of studies is using resources such as the Open Payment database to verify the accuracy of the COI disclosures of health researchers [19-22]. They are consistently showing that researchers tend to underreport their conflicts of interest (up to 81% in one study [23]).*"

Comment 9: I also really like your appendix describing the definitions of COIs.

Response 9: We thanks the Reviewer for his positive comment on our definitions of COIs.

Comment 10: Overall impression: Methodology is strong, writing could use some minor enchantments such as transitional words for readability, use of the Open Payments database for studies conducted in the USA would have made this a stronger paper.

Response 10: we thank the Reviewer for his positive feedback on our methodology. For this study, we specifically defined COI disclosure as "the **reporting** of whether a COI exists or not" as our ultimate purpose is not to verify the accuracy of the disclosures, but to better understand the different types of COIs that authors report. We will be using these data to ensure that the comprehensive framework for the classification of COI that we based it on clinical studies, is also relevant to the field of health policy and systems research.

As we have mentioned in comment 2, we are currently conducting a systematic review of studies examining the verification of COI disclosures and indeed, the most commonly used source to verify COIs was the Open Payments database (OPD). We have clarified this point in the discussion section of the manuscript and added relevant references[6]:

> *"Possible explanations for this low rate of disclosure could be that HPSR authors may have less COIs than authors in the clinical field, HPSR authors are less aware of what constitute COI in their field or self-reporting is an inadequate and inaccurate form of disclosure. Indeed, an increasing number of studies is using resources such as the Open Payment database to verify the accuracy of the COI disclosures of health researchers [19-22]. They are consistently showing that researchers tend to underreport their conflicts of interest (up to 81% in one study [23]).*"

[6] 19. Boddapati V, Fu MC, Nwachukwu BU, et al. Accuracy Between AJSM Author-Reported Disclosures and the Centers for Medicare and Medicaid Services Open Payments Database. The American journal of sports medicine 2018;46(4):969-76. doi: 10.1177/0363546517750124 [published Online First: 2018/02/01]
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21. Jimbo M, Granberg CF, Osumah TS, et al. Discrepancies in Self-Reported and Actual Conflicts of Interest for Robotic Pediatric Urological Surgery. The Journal of urology 2019;201(2):393-99. doi: 10.1016/j.juro.2018.07.043 [published Online First: 2018/07/28]
22. Luce EA, Jackman CA. Disclosure of Financial Conflicts of Interest in Plastic and Reconstructive Surgery. Plastic and reconstructive surgery 2017;140(3):635-39. doi: 10.1097/prs.0000000000003598 [published Online First: 2017/08/26]
23. Patel SV, Yu D, Elsolh B, et al. Assessment of Conflicts of Interest in Robotic Surgical Studies: Validating Author's Declarations With the Open Payments Database. Annals of surgery 2018;268(1):86-92. doi: 10.1097/sla.0000000000002420 [published Online First: 2017/07/13]

VERSION 2 – REVIEW

REVIEWER	Marianne Koch Medical University of Vienna, Vienna, Austria
REVIEW RETURNED	22-Oct-2019

GENERAL COMMENTS	I have no further comments.

REVIEWER	Jake Checketts Oklahoma State University - Center for Health Sciences
REVIEW RETURNED	20-Nov-2019

GENERAL COMMENTS	Background: No changes necessary. The background is too the point, and easily read. Methods: The methodology is sound, and the authors took extra steps to report each detail in which they conducted the study. This will increase this study's reproducibility and reliability. Although, I am confused why they listed country of origin by income, I feel actually listing the country itself would have been more insightful and could have lead to identifying countries where disclosure is sub-optimal. Results: The author's sound methodology results in very descriptive results, with great tables to effectively summarize data. What were some of the disclosure policies that journals had? Did you include a journal as "having a policy" if they simply made not of COI in their policies or did you only include if they said COIs are to avoided/not present by the authors? I would have preferred if the authors reported the statistical significance of whether journal policy lead to increase adherence to COI disclosure. Were any of these studies completed in the USA? It would have been interesting and telling for the authors to use this database to "fact check" the included disclosure statements as has been done in other studies. Discussion: Reads well with a healthy amount of background information and comparisons between the author's data and others without being too long winded or lengthy. Overall: A well conducted paper, however, my biggest concern is how big the weight of the author's findings are. It is interesting that only 2/3 reported COIs, however, I many recent papers have stated self reporting is inadequate and often incorrect. So I struggle with whether these findings themselves are in fact noteworthy because there is a decent chance that the disclosures that were reported were done so in an insufficient manner based on recent literature. The author's data relies on self disclosure, and therefore is not founded on stable footing in my opinion because their data started out biased in nature (not to the fault of the authors). This is why the paper would have had more "meat" if they compared the USA based papers and their disclosure statements to the Open Payments database. Then the authors

	could state that disclosure of COIs by percentage of studies (2/3) is suboptimal, and in those that can be measured they were either accurate or inaccurate based on the Open Payments Database.

VERSION 2 – AUTHOR RESPONSE

Reviewer: 4
Reviewer Name
Marianne Koch
Institution and Country
Medical University of Vienna, Vienna, Austria
Please state any competing interests or state 'None declared':
none declared

Please leave your comments for the authors below
I have no further comments.

Reviewer: 5
Reviewer Name
Jake Checketts
Institution and Country
Oklahoma State University - Center for Health Sciences

Please state any competing interests or state 'None declared':
None Declared

Please leave your comments for the authors below

Comment 1: Background: No changes necessary. The background is too the point, and easily read.
Response 1: We thank the Reviewer for the positive feedback.

Comment 2: Methods: The methodology is sound, and the authors took extra steps to report each detail in which they conducted the study. This will increase this study's reproducibility and reliability. Although, I am confused why they listed country of origin by income, I feel actually listing the country itself would have been more insightful and could have lead to identifying countries where disclosure is sub-optimal.

Response 2: Thank you for the valuable suggestion. We have added the list of countries to Table 1. As reported in the manuscript, most studies were conducted by authors affiliated with institutions located in high-income countries (92%). As inferred from Table 1, most articles were conducted in the United States (54%) followed by UK (8%).
We have added the below to the results section:
The majority of studies were conducted by authors affiliated with institutions located in high-income countries (92%) where most articles were conducted in the United States (54%) followed by UK (8%). Most articles addressed the topic of delivery arrangements (72%).
Comment 3: Results: The author's sound methodology results in very descriptive results, with great tables to effectively summarize data.
Response 3: Thank you for the very positive feedback.

Comment 4: What were some of the disclosure policies that journals had? Did you include a journal

as "having a policy" if they simply made not of COI in their policies or did you only include if they said COIs are to avoided/not present by the authors?

Response 4: Thank you for raising this important question. We have a published a separate paper on the requirements of health policy and services journals for authors to disclose financial and non-financial conflicts of interest . That study had a totally different study design and consisted of reviewing the journals' published policies on COI disclosure. The Characteristics of the COI disclosure policy included:
• Existence of a COI policy
• Basis of the COI policy (e.g. publisher, ICMJE)
• Form used for COI disclosure
• COI disclosure submission method (e.g. in the cover letter, in the manuscript)
• Relation of COI disclosure to submitted work
• Timing of COI disclosure relative to submission
• Time period for which disclosure of COI is required
• The handling of COI disclosures (verification, reporting in the publication, effect of disclosures and inaccurate or incomplete disclosures on the editorial process)
In this paper under consideration, when we mentioned that the journals had a COI disclosure policy we referred to the existence of a COI policy in the journal requiring authors to disclose their conflict of interest. We have added this statement to the manuscript to clarify the point raised by the Reviewer: Ninety-six percent (53/55) of the journals had a COI disclosure policy requiring authors to report their conflict of interests.

Comment 5: I would have preferred if the authors reported the statistical significance of whether journal policy lead to increase adherence to COI disclosure.

Response 5: Thank you for the suggestion. We have added the following statement:
The percentage of papers that included a COI statement was 68.2% in journals with a COI disclosure policy and 12.5% in journals without a COI disclosure policy (p=0.012).

Comment 6: Were any of these studies completed in the USA? It would have been interesting and telling for the authors to use this database to "fact check" the included disclosure statements as has been done in other studies.

Response 6: As mentioned in comment 2, we have now added the list of countries to Table 1. Most of the articles are conducted in the United States (54%). We have added the below statement to the results section:
The majority of studies were conducted by authors affiliated with institutions located in high-income countries (92%) where most articles were conducted in the United States (54%) followed by UK (8%). Most articles addressed the topic of delivery arrangements (72%).
We agree with the Reviewer that it would be interesting to verify the included disclosure statements. We are indeed interested in conducting a verification study, but that would be a separate project given it require a totally different methodological approach. Nonetheless, we have added the following to the discussion section of the manuscript:
"Possible explanations for this low rate of disclosure could be either an actual low prevalence of COI in this field, or an underreporting by HPSR authors of their COIs. Indeed, an increasing number of studies is using resources such as the Open Payment database to verify the accuracy of the COI disclosures of health researchers 19-22. They are consistently showing that researchers tend to underreport their conflicts of interest (up to 81% in one study 23)."

Comment 7: Discussion: Reads well with a healthy amount of background information and comparisons between the author's data and others without being too long winded or lengthy.

Response 7: We thank the Reviewer for the positive feedback.

Comment 8: Overall: A well conducted paper, however, my biggest concern is how big the weight of the author's findings are. It is interesting that only 2/3 reported COIs, however, I many recent papers have stated self reporting is inadequate and often incorrect. So I struggle with whether these findings themselves are in fact noteworthy because there is a decent chance that the disclosures that were reported were done so in an insufficient manner based on recent literature. The author's data relies on self disclosure, and therefore is not founded on stable footing in my opinion because their data started out biased in nature (not to the fault of the authors). This is why the paper would have had more "meat" if they compared the USA based papers and their disclosure statements to the Open Payments database. Then the authors could state that disclosure of COIs by percentage of studies (2/3) is suboptimal, and in those that can be measured they were either accurate or inaccurate based on the Open Payments Database.

Response 8: Again, we agree with the importance of the Reviewer’s point. Our ultimate purpose is to better understand the different types of COIs that authors report and the frequency of COI disclosed by authors of primary studies of HPSR. We ultimately aim to develop a comprehensive framework for the classification of COI and to better inform HPSR journals to strengthen their COI disclosure policies, and the implementation of existing policies.